5

QGTTTTCCACGTTTTGCNTGACCCTGTTTGCTCAACTRWCKTYTKTKTYKYKTTYTSTKTTRYGCSSYKWYAMRAKMYM -START SEQ ID NO:1 MRMKTTKAAAAAMCMRRAAAGTTAAYTGGTAAGTTTAGTCTTTTTGTCTTTTATTTCAAGGTCCCGGATCCGGTGGTGG TGCAAATCAAAGAACTGCTCCTCAGTGGATGTTGCCTTTACTTCTAGGCCTGTACGGAAGTGTTACTTCTGCTCTAAAA GCTGCGGAATTCTAATACGACTCACTATAGGGAGTCGACCCACGCGTCCGGTGGGCAGGCCGGGGGTGAGGGCTCGCGC TCCGGGGGCTGCACGGGCTGCCTCGAAAGAGCGCCGAGCGCTCGTCGTCGTCGCCCCCTCCTCGTCGGGAAGAATC START SEQ ID NO:2 3 GTTTGGTCTCCTGCCGTGCCCGGAATCCCAGTCAGAAGTTCCAGCCTGCCACTGTTCTCTGATGCC ATG CCA GCA START SEQ ID NO:3 PTQLFFPLIRNCELSRIYGT 23 CCA ACT CAA CTG TIT TIT CCT CTC ATC CGT AAC TGT GAA CTG AGC AGG ATC TAT GGC ACT A C Y C H H K H L C C S S S Y I P Q 43 GCA TGT TAC TGC CAC CAC AAA CAT CTC TGT TGT TCC TCA TCG TAC ATT CCT CAG AGT CGA 129 FCRPK E N 63 LRYTPHPAYAT CTG AGA TAC ACA CCT CAT CCA GCA TAT GCT ACC TTT TGC AGG CCA AAG GAG AAC TGG TGG 189 83 YTQGRRYASTPO K F Y Τ. т CAG TAC ACC CAA GGA AGG AGA TAT GCT TCC ACA CCA CAG AAA TIT TAC CTC ACA CCT CCA 249 S F K v D 103 ILKANEY CAA GTC AAT AGC ATC CTT AAA GCT AAT GAA TAC AGT TTC AAA GTG CCA GAA TTT GAC GGC K N V S S I L G F D S N Q L P A N A P I 123 AAA AAT GTC AGT TCT ATC CTT GGA TTT GAC AGC AAT CAG CTG CCT GCA AAT GCA CCC ATT 369 143 D R R S A A T C L Q T R G M L L G GAG GAC CGG AGA AGT GCA GCA ACC TGC TTG CAG ACC AGA GGG ATG CTT TTG GGG GTT TTT 429 A G C A C S Q A V S E R L F Y Y 163 GAT GGC CAT GCA GGT TGT GCT TGT TCC CAG GCA GTC AGT GAA AGA CTC TTT TAT TAT ATT 489 LLPHETL L E I E N A V R 183 GCT GTC TCT TTG TTA CCC CAT GAG ACT TTG CTA GAG ATT GAA AAT GCA GTG GAG AGC GGC 549 203 1 L Q W H K H P N D CGG GCA CTG CTA CCC ATT CTC CAG TGG CAC AAG CAC CCC AAT GAT TAC TTT AGT AAG GAG 609 223 A S K L Y F N S L R T Y W Q E LIDL GCA TCC AAA TTG TAC TIT AAC AGC TTG AGG ACT TAC TGG CAA GAG CTT ATA GAC CTC AAC 669 F K 243 TDID VKE ALIN A R L ACT GGT GAG TCG ACT GAT ATT GAT GTT AAG GAG GCT CTA ATT AAT GCC TTC AAG AGG CTT 729 FLNYL 263 I S L E A O V G D P N S GAT AAT GAC ATC TCC TTG GAG GOG CAA GIT GGT GAT CCT AAT TCT TIT CTC AAC TAC CTG 789 RVAFSGATACVAH v D G V D 283 V L GTG CTT CGA GTG GCA TTT TCT GGA GCC ACT GCT TGT GTG GCC CAT GTG GAT GGT GTT GAC 849 303 ANTGD S R A M L CTT CAT GTG GCC AAT ACT GGC GAT AGC AGA GCC ATG CTG GGT GTG CAG GAA GAG GAC GGC

Fig. 1A

AVTLSNDHNAQNERELE 323 TCA TGG TCA GCA GTC ACG CTG TCT AAT GAC CAC AAT GCT CAA AAT GAA AGA GAA CTA GAA 969 LKLEHPKSEAKSVVKQDRL 343 CGG CTG AAA TTG GAA CAT CCA AAG AGT GAG GCC AAG AGT GTC GTG AAA CAG GAT CGG CTG 1029 L G L L M P F R A F G D V K F K W S I D 363 CTT GGC TTG CTG ATG CCA TITT AGG GCA TTT GGA GAT GTA AAG TTC AAA TGG AGC ATT GAC 1089 LQKRVIESGPDQLNDNEYTK 383 CTT CAA AAG AGA GTG ATA GAA TCT GGC CCA GAC CAG TTG AAT GAC AAT GAA TAT ACC AAG 1149 I P P N Y H T P P Y L T A E P E V T Y TIT ATT CCT CCT AAT TAT CAC ACA CCT CCT TAT CTC ACT GCT GAG CCA GAG GTA ACT TAC 1209 HRLRPQDKFLVLATDGLWET 423 CAC CGA TTA AGG CCA CAG GAT AAG TIT CTG GTG TTG GCT ACT GAT GGG TTG TGG GAG ACT 1269 M H R Q D V V R I V G E Y L T G M H H Q ATG CAT AGG CAG GAT GTG GTT AGG ATT GTG GGT GAG TAC CTA ACT GGC ATG CAT CAC CAA 1329 463 O P I A V G G Y K V T L G Q M H G L L T CAG CCA ATA GCT GTT GGT GGC TAC AAG GTG ACT CTG GGA CAG ATG CAT GGC CTT TTA ACA 1389 ERRTKMSSVFEDQNAATHL I 483 GAA AGG AGA ACC AAA ATG TCC TCG GTA TTT GAG GAT CAG AAC GCA GCC ACC CAT CTC ATT 1449 RHAVGNNEFGTVDHERLSKM CGC CAC GCT GTG GGC AAC AAC GAG TTT GGG ACT GTT GAT CAT GAG CGC CTC TCT AAA ATG 1509 LSLPEELARMYRDDITIIVV CIT AGT CIT CCT GAA GAG CIT GCT CGA ATG TAC AGA GAT GAC ATT ACA ATC ATT GTA GIT 1569 Q F N S H V V G A Y Q N Q F ** END SEQ ID NO:2 538 1614 TGAGTGGCTCTTTCACTGGCAATTCTCAAATGATATACATTTAAAGGGCAGATTTTTTAAAAAGATACTACTATAATAA GGGTGGCAGGTCAGGAGAGTCTGGTCCTGCCTAGCTCAGATTTCATGGCACCTGCACTTGAAGCAAGTCACTTCTTTA TCACAGGTGTCTTGAAACATTAGCTTCTTTTACCAACCTGAGAAAATTAGGATGACCTGGCAAATAAGATCTTGAATAG GCCAAAAGCAAGTATCTTGCTGTGTGTAGTCTCTTGGTTAAAGTGAAGAAACAGTACTGTTCACACCCTTTCTTCACTGA GATTYYYAGTGTACATGAGAACATATATTTATTKSMWKRWITIYYWRRTACACAGTCTATGCATTWITCATAWWMAWITA TTTTWCCCTAAATAARGTKKTTWWCAMATCYAGTTHWTCMATCMATRAACRASMAMCAASCAATCTRTATKTRTTTTTK TKWKTRWTTRWYTGRMAKGMWTSYTWAKTRRAKRAMTAWMCWCMSTYATCCAYCCCMYYKMYTWMYKWAAKTRATTGA AATATFFFFFWFFFTGCCCCCCCCTTGGAGTCAAGAAGGGFFFFTAGFFFTATCFTCTYTTCTATTGAAGFTAAAAAAA

Fig. 1B

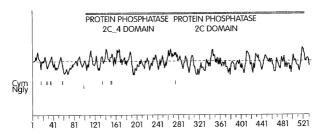


Fig. 2

	C: domain 1 of 1, from 173 to 461: score 261.3, E = 1.3e-74	PP2C:
SEQ ID NO:4	*->ldvgvsrmqgwrksmeDahialknlnssssgkdswsffavfDGhgGs	
	1 ++++ + r +++ ++++++ ++ s++ s+ +f ++++ +	
218SEQ ID NO:2	26583 173 LLETENAVESGRALLPILQWHKHPNDYF-SKEASKLYFNSLRTYWQE	
	$\tt qaakyagkhlhk.tilaerksfpegdpw{\tt Emklsdledalkesfleadtde}$	
	+ +g++ +++ + a++ f+ +d+ d + ++++ +++++	
262	26583 219 LIDLNTGESTDIdVKEALINAFKRLDNDISLEAQVGDPNSFLNY	
	elrsaeasaankvltkedlssGsTAvvalirgnkLyVANvGDSRavLcrn	
	+++ + sG+TA+va+++g +L+VAN+GDSRa+L+ +	
299	26583 263 LVLRVAFSGATACVAHVDGVDLHVANTGDSRAMLGVQ	
	gnaikw.avtLteDHkPsnedEreRIeaaGGfvsrvsngRvnGvLav	
	+++++W+avtL++DH+++ne+E+eR++ ++++ + +s +++R++G L++	
349	26583 300 EEDGSWSAVTLSNDHNAQNERELERLKLEHPKSEAKSvvkQDRLLGLLMP	
	sRAfGDfelKpgsklgpeas.l.e.a.ny.eyiks.peqlVtaeP	
	RAfGD+++K+ +l+++ ++++++ n++ey+k+ p++ +++++ taeP	
	26583 350 FRAFGDVKFKWSIDLQKRVIeSgPdQlNDnEYTKFiPPnyhtpPYLTAEP	
	dvtsstdltpdkDeFliLAcDGLWDvvsdqevvdivrselsdgnksaedp	
	+vt +++l+p+ D+Fl+LA+DGLW++++ q+vv iv + l+ + +	
441	26583 400 EVT-YHRLRPQ-DKFLVLATDGLWETMHRQDVVRIVGEYLTGMH	
	meaaeklvdeaiargaeDni<-*	
	++ ++ + + 9 ++	
	26583 442 HOOPIAVGGYKVTLGOMHGL 461	

Fig. 3A

```
PP2C 4: domain 1 of 1, from 99 to 523: score 338.5, E = 7.6e-98
                                                               SFQ ID NO:5
          *->es.sqknlqlryqlqessmqqwrkpmEDahvirp.....ffgvfD
                 gkn +++ g+ +s++ +++ p+ED+ ++ + ++++ qVfD
           PEEDGKNVSSILGF-DSNQLPANAPIEDRRSAATclqtrgmLLGVFD 144 SEQ ID NO:2
26583 99
          GHGGseaakflsknlheilaeelsfdkdeslkene.e.lk.d.ep.....
           GH+G ++++ +s++l+ ++a +l +++ ++ en+ e+++ + ++ ++
26583 145 GHAGCACSOAVSERLFYYTAVSLLPHETLLETENAVESGRallPIlqwnk 194
           .....ess.e.r.ln.gdksledveealrkaFlrtd
           ++++ +++ ++ ++ ++++e +ln+g++++ dv+eal++aF+r+d
26583 195 hpndyfskeasklyfnslrTYWqElIdLNtGESTDIDVKEALINAFKRLD 244
           eei.....sTAvvalirgnklyvANvGDSRa
                                  +++TA+va+++g +1+vAN+GDSRa
           ++1+ + + +++++ +
                             +
26583 245 NDIsleaqvgdpnsflnylvlrvafsgATACVAHVDGVDLHVANTGDSRA 294
           vLcrngkd.swegvrtysavqLteDHkpanedEreRieaaGGevepidre
           +L+ + +d+sw
                           sav L++DH++ ne+E+eR++ ++++ e +++
26583 295 MLGVQEEDgSW-----SAVTLSNDHNAQNERELERLKLEHPKSE--AKS 336
           fvsnqqqvvwRvnGvvisLavsRalGDfelKk.ked.e.lie....en.
                    R++G L++ Ra+GD+++K++++++ie++++h+
26583 337 VVKQD-----RLLGL---LMPFRAFGDVKFKWsIDLqKrVIEsgpdqLNd 378
           rlyekfdprlpgkepyvsaePevtvvelsqtlvptedddfliLASDGLWD
           ++y+kf p+ ++++py++aePevt+++1
                                           +++d+f1+LA+DGLW+
26583 379 NEYTKFIPPNYHTPPYLTAEPEVTYHRL-----RPQDKFLVLATDGLWE 422
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            + q++v iv + 1+++++++++ ++++ +++++ ++++++ ++
 26583 423 TMHRODVVRIVGEYLTGMHHOGPIAVGGYKVTlGqMhGllteRrtkmssv 472
           .....l.r..skkhndpkeaaklLvdlAl......kDNiTvvv
                                +++L +++ +++ + +D+iT++V
            ++++ ++1 r+ +++++
 26583 473 fedgmaathLiRhaVGNNEFGTVDHERLSKMLSlpeelarmyRDDITIIV 522
           v<-*
 26583 523 V
```

Fig. 3B

